**Dogs Decoded**

**Learning target:** I can explain how human activity can impact the genes of organisms.

* + Language target: I can describe the process of artificial selection (selective breeding) to create an organism with desired traits.
  + Vocabulary: Trait, Artificial Selection, Genes, Organism

**Before the video:**

* List the traits that you think would make an ideal dog.
* While watching the video clip:
  + Person A (Left): What process do the scientists use to get the desired traits in the foxes? How does it work?

* + Person B (Right): What are the different traits or characteristics we see in the two types of foxes?

**After the video:** Have an academic conversation about what you saw.

Can you tell me more about the time/number of generations…what occurred during that time?

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| Academic Conversation Features | | | |
| ***Feature*** | ***Picture and signal*** | ***Question starters*** | ***Statement starters*** |
| **Come up with a worthy topic** |  | Why do you think we are learning this? What does this have to do with…? | I think we are learning this because… |
| **Elaborate and clarify** | (pull hands apart) | Can you elaborate? What do you mean by…? Can you tell me more about…? What makes you think that? | I think it means that… In other words… |
| **Support ideas with examples** | (pointer finger on pinky of other hand) | Can you give me an example? Can you show me where it says that? Can you be more specific? Are there any cases of…? | For example… One piece of evidence is… In the text it says that… I know this because…  Can you think of other living things that people have/would want to change? |
| **Build on or challenge another’s ideas** | (layer hands on top of each other) | What do you think? Can you add to this idea? Do you agree? What might be other points of view? | I would add that… Then again, I think that… I want to add to your point that… I dis/agree with… |
| **Apply and connect** | (hook both hands together) | How can we apply this idea to our lives? What can we learn from this idea? If you were… What experience do you have with… | In my life… I think it can teach us… If I were…I would…  How does this relate to how dogs actually came to be? |
| **Paraphrase and summarize** | (cup hands together) | What have we discussed so far? How should we summarize what we talked about? | We can say that… The main point we discussed was… The most important… So, you are saying that… |

**After the conversation:** Use what you talked about and saw to answer the following questions. Write a paragraph for each.

1. If you were given an aggressive fox or wolf (as seen in the video), how would you get a dog with the desired traits you listed previously?

-Explain the process in detail. How long do you think it would take?

2. Why is this included in our genetics unit? How is it connected to our learning?

-Use as many vocabulary words as possible.

-Possible sentence starters:

-This video relates to what we have learned about genetics because…

-Artificial selection is a topic in our genetics unit because…